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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,332	06/24/2003	Paul W. McLeod	020529-9020-01	2031
23585	7590	04/29/2004	EXAMINER	
MICHAEL BEST & FRIEDRICH LLP 3773 CORPORATE PARKWAY SUITE 360 CENTER VALLEY, PA 18034-8217			LEWIS, TISHA D	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,332

Applicant(s)

MCLEOD ET AL.

Examiner

TISHA D. LEWIS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

The following is a first action on the merits of application serial no. 10/602,332, filed on June 24, 2003.

Information Disclosure Statement

The information disclosure statement filed on June 24, 2003 has been acknowledged.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 285 (page 6, lines 4 and 7). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

The status of the nonprovisional parent application should be included. The expression "now Patent No. 6,616,573" should follow the filing date of the parent application in the first sentence of the specification. Appropriate correction is required.

Claim Objections

Claims 5 and 6 are objected to because of the following informalities:

-In the first line of claims 5 and 6, --in-- should be inserted after "claimed".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the key switch" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Prior Art drawing Figure 1. The prior art drawing discloses a schematic for starting an engine with a first switch (118) by turning the first switch to a starting position (run/accessory position), energizing a second switch (148) using an electrical power source wherein the second switch is closed (run/accessory position connects battery terminal 126 to switch 132 which when closed connects to 148), energizing a starter generator (from switch 148 to node 155 and to coil 160), the first switch already being in a run position, and charging the electrical power source using the starter generator (voltage regulator 172 controlling current from generator to battery).

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As to claim 2, the prior art drawing discloses the transmission in a neutral position when the switch is in a run/accessory position.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art drawing figure 1 in view of Ragaly ('684). As to claims 3-6, the prior art drawing discloses a schematic for controlling a starter generator using a first switch (132) by providing a circuit path from a battery (112) to the first switch (when the switch is closed), providing a switched circuit path from a shifter (gearshift switch 152) to the first switch (by closing switches 132 and 152), energizing a second switch (148) by moving the first switch to a predetermined position (closing switch 132), providing current from the battery through the second switch to the starter generator (from switch 148 to node 155 to coil 160 to generator 162), de-energizing the second switch by moving the first switch to a second predetermined position (opening switch 132), de-energizing the second switch by opening the switched circuit path (opening switches 132 and 152), but the prior art drawing does not disclose a rectified circuit path from the generator to the battery.

Ragaly discloses a starter circuit including a first and second switch (11, 13),

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a starter motor (17) to start an engine and an alternator (1) to charge a battery (4, 5),

a voltage regulator (7) controlling voltage applied to the battery and
a rectifier circuit path (2, 3) coupled in a parallel circuit path to the first and second switch.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the prior art drawing with a rectifier circuit connected between the battery and the starter-generator in view of Ragaly to prevent reverse current flow from the battery to the generator when the starter-generator is not operating.

As to claim 7, the prior art drawing discloses a schematic for controlling a starter generator by providing a multiple position switch (118) for de-energizing a solenoid (142) and providing a shifter-control switch (152) for de-energizing the solenoid, but the drawing does not disclose a bypass rectifier for charging an electrical power source.

Ragaly discloses a starter circuit including a key switch (11, 13),
a starter motor (17) to start an engine and an alternator (1) to charge a battery (4, 5),

a voltage regulator (7) controlling voltage applied to the battery and
a rectifier (2, 3) to block power draining from the battery (column 3, lines 62-65).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the prior art drawing with a rectifier circuit connected between the power source and the starter-generator in view of Ragaly to prevent

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reverse current flow from the power source to the generator when the starter-generator is not operating.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(703) 872-9326 before final and 703-872-9327 after final**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check **should not be** submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to
the Patent and Trademark Office (Fax No. (703) 000-0000) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Koelle et al ('104), Crook ('525), Ball et al ('178), Kuehner et al ('974), Hirata et al ('141), Nakagawa et al ('295) and Walter et al ('204) are cited as having control circuits using multiple switches for starting a starter generator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TISHA D. LEWIS whose telephone number is 703-305-0921. The examiner can normally be reached on M-Thur 8 AM TO 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES A. MARMOR can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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April 14, 2004


Tishad Lewis
Primary Examiner
AU 3681 4/14/04